

Please amend the Specification as follows:

On page 1, please replace paragraph 1 with the following rewritten paragraph.

This invention relates generally to a method and system for a computer system in a communication network, and in particular, a system and method for a computer system in a communication network to support heterogeneous communication devices.

On page 2, please replace paragraph 4 with the following rewritten paragraph.

Technologies, such as servlets, Enterprise Java Beans (EJBs) and Java ~~Script~~ Server Pages (JSPs), enable modular development of software for e-commerce applications to consider these issues. However, e-commerce applications utilizing these technologies should still consider issues such as:

On page 4, please replace paragraph 1 with the following rewritten paragraph.

The method may extract command parameters from the command into an object after receiving the command and initiate displaying of the results using the set of display parameters on the device after retrieving ~~from the database~~ the set of display parameters from the database.

On page 4, please replace paragraph 4 with the following rewritten paragraph.

The method may incorporate the set of display parameters into the object after retrieving the display parameters from the database ~~the display parameters~~. Further, the method may incorporate into the object a view command identifying a composition of a view associated with the command after retrieving ~~from the database~~ the set of display parameters from the database. Further the method may select a view command from a forward view, a redirected view or a direct view.

On page 5, please replace paragraph 1 with the following rewritten paragraph.

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The article may have the method of the program further comprising the steps of extracting command parameters from the command into an a-object after receiving the command and initiating displaying of the results using the set of display parameters on the device after retrieving ~~from the database~~ the set of display parameters from the database.

On page 5, please replace paragraph 3 with the following rewritten paragraph.

The article may have the method of the program further comprising the step of incorporating the results into the object after receiving the results from execution of the common format command.

On page 6, please replace paragraph 2 with the following rewritten paragraph.

The system may have the method of the program further comprising extracting command parameters from the command into a- an object after receiving the command and initiating displaying of the results using the set of display parameters on the device after retrieving ~~from the database~~ the set of display parameters from the database.

On page 7, please replace paragraph 2 with the following rewritten paragraph.

In a fourth aspect, an article is provided. The article comprises a computer readable modulated carrier signal and a program encoded in the computer readable modulated carrier signal. The program is for use in a computer system executing commercial transactions initiated from communication devices, each device having a display with custom display parameters. The program embodies a method comprising, for one device, receiving a command from the device, translating the command into a common format command, the common format command being executable by the computer system, executing the common format command, receiving results from execution of the common format command, accessing a database comprising elements identifying sets of display parameters, one set for use with the custom display parameters and retrieving from the database the set of display parameters.

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On page 7, please replace paragraph 3 with the following rewritten paragraph.

The article may have the method comprising extracting command parameters from the command into a an object after receiving the command and initiating displaying of the results using the set of display parameters on the device after retrieving ~~from the database~~ the set of display parameters from the database.

On page 8, please replace paragraph 3 with the following rewritten paragraph.

Other aspects of the invention ~~provides~~ provide various combinations and subsets of the aspects described above.

On page 10, please replace paragraph 2 with the following rewritten paragraph.

Referring to Figs. 1 and 1A, e-commerce server 100 is shown connected to network 102. Web browser on computer 104 is connected to network 102 and communicates through network 102 to server 100. Cell phone 108 and pager 110 also communicate with server 100. Intermediary gateways 112 and 114, respectively, provide required hardware and software interfaces for cell phone 108 and pager 110 to communicate with network 102 and, hence, to server 100. Other computers 100b may have software providing ~~business-to-business~~ business-to-business applications with server 100. Communication network 102 may be the Internet.

Beginning on page 10, please replace paragraph 4 with the following rewritten paragraph.

Server 100 provides clients operating web browser 104, web-enabled cellular communication device 108, pager 110 or similar web-enabled devices with access to software operating thereon. The software provides processing of commercial transactions, including ordering products and querying aspects of products (e.g. price, size, availability). Information regarding products catalogued by the software is stored on database 106. Database 106 is also associated with software on server 100. It can be appreciated that database 106 may be

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located within server 100 or may be associated with server 100 in a distributed manner through network 102, such as with database 106a.

On page 12, please replace paragraph 1 with the following rewritten paragraph.

Referring to Fig. 3, elements of software operating on server 100 are shown. At a basic level, first, browser 104 generates a URL containing a request. The request is received by server 100 at a receiving engine 302. In the preferred embodiment, separate servlet receiving engines 302a is provided for a URL request. The servlet engine 302a analyses the request and allocates a thread 303 to the request. Threads and their processing, are known in the art.

Beginning on page 12, please replace paragraph 3 with the following rewritten paragraph.

Protocol listener 304 passes the information in the URL to an appropriate adapter 307. There are several adapters in server 100. Each adapter formats data into an appropriate format for each type of device. For example, in the embodiment adapters 307 include: HTTP adapter 307a, XML adapter 307b, and scheduler adapter 307c. Specific types of HTTP adapters 307 include browser adapter 307d and PVC adapter 307c. Note, however, that in the preferred embodiment, an adapter manager 305 is provided to select the appropriate adapter 307. Once the particular adapter 307 is identified, adapter manager 305 passes the request to the adapter.

On page 14, please replace paragraph 3 with the following rewritten paragraph.

Server 100 also provides access to computer systems employing MQ (Message and Queue) communication protocols. Accordingly, computer 100b provides MQ messages to MQ listener 302b of server 100. In the preferred embodiment, MQ requests are processed in XML format. Accordingly, MQ listener 302b provides requests sent to it to XML adapter 307b.

On page 14, please replace paragraph 4 with the following rewritten paragraph.

Server 100 also provides a scheduler which allows requests to be scheduled to be initiated at certain times or certain intervals. The scheduler comprises scheduler adapter 307c and scheduler controller 306c. There is no protocol listener 302 associated with the scheduler. Instead, the scheduler consists of a program that "wakes up" at regular intervals. Schedulable requests are entered into the scheduler database 313 from request servlet 302a or MQ listener 302b. At times associated with the scheduled requests, scheduler 306c initiates the processing of the request.

On page 15, please replace paragraph 5 with the following rewritten paragraph.

Figs. 4B(i) and 4B(ii) provide a definition for a device format adapter and HTTPAdapter which defines an HTTP device specific adapter. Referring to Fig 4B(ii), HTTPAdapterImpl provides the pseudo-code for a base implementation for an HTTP adapter. Further, pseudo-code for HTTPBrowser provides one implementation for a HTTPAdapter for a browser and pseudo-code for HTTPPVCAAdapter provides one implementation for a PVC adapter.

On page 19, please replace paragraph 3 with the following rewritten paragraph.

Entity beans 318 are persistent, transactional commerce objects provided by software operating on server 100. Data can be accessed from an entity bean which more closely models concepts and objects in the commerce domain, see step 3.7.5. Beans 318 may be extend or replace existing entity beans 318. In addition, new application specific business requirements, can deploy entirely new entity beans. Entity beans 318 are implemented according to the Enterprise JavaBeans (EJB) component model known in the art.

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Using the view name and the input device type, web controller 306a fetches a response JSP 312. With this scheme, a device specific view for each device may be implemented. On completion, web controller 306a sends ~~back to device 104~~ an appropriate HTTP response back to device 104 based on data returned from controller command 308a. Web controller 306a has a framework allowing modification to its structure with minimum effort. For example, to add a new or change web controller 306a, an extension can be made to it.

On page 22, please replace paragraph 2 with the following rewritten paragraph.

Before invoking JSP 312, web controller 306a copies attributes from the command to JSP 312. The attributes become the input parameters of data beans 314 in the responding JSP 312. Data bean 314 provides the dynamic content for a JSP 312. The input properties are often required by a data bean 314, so that they can be used to form a primary key to fetch a complete data object from database 106 via an EJB.

Beginning on page 23, please replace paragraph 4 with the following rewritten paragraph.

Data beans 314 represent containers of properties (or data) that are primarily used by page designers. Most commonly, they provide a simple representation of an entity, such as an a retailer, associated with server 100. A page designer can place beans 314 on a JSP template, allowing dynamic information to be populated on the page at display time. Accordingly, the page designer only needs to know what data bean 314 can provide and what data the bean 314 requires as input; there is no need for the page designer to understand how the bean works.

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On page 24, please replace paragraph 1 with the following rewritten paragraph.

A database command 308d is invoked by a JSP page 312 when a database is to be instantiated. The primary function of a database command 318 is to populate the data into a database 314.

On page 25, please replace paragraph 2 with the following rewritten paragraph.

Having thus described a particular embodiment, various alterations, modifications, and improvements will readily occur to those skilled in the art. Such alterations, modifications, and improvements are intended to be part of this disclosure, and are intended to be within the scope of the invention. Accordingly, the foregoing description is by way of example only and is not ~~intending~~ intended as limiting. It is noted that those skilled in the art will appreciate that various modifications of detail may be made to the preferred embodiments described herein which would come within the scope of the invention as described in the following claims.

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